CLAIMS

The invention is claimed as follows:

1. A two part dialysis solution comprising:

a first component comprising a bicarbonate concentrate;

a second component comprising an electrolyte concentrate; and

each of the first component and the second component including a physiological acceptable amount of sodium.

2. The two part dialysis solution of claim 1 wherein the bicarbonate concentrate and the electrolyte concentrate include an equimolar amount of sodium of about 160 mmol/L or less.

3. The two part dialysis solution of claim 1 wherein the bicarbonate concentrate and the electrolyte concentrate include an equimolar amount of sodium ranging from about 100 mmol/L to about 160 mmol/L.

4. The two part dialysis solution of claim 1 wherein each of the bicarbonate concentrate and the electrolyte concentrate contain a physiological acceptable amount of potassium ranging from about 0.1 mmol/L to about 5 mmol/L.

5. The two part dialysis solution of claim 1 wherein the first component does not include potassium and the second component includes potassium.

6. The two part dialysis solution of claim 1 wherein a mixed solution of the first component and the second component comprises about 100 mmol/L to about 160 mmol/L of sodium, about 0 mmol/L to about 2.0 mmol/L of calcium, about 0 mmol/L to about 1.5 mmol/L of magnesium, about 0 mmol/L to about 5 mmol/L of potassium, about 20 mmol/L to about 45 mmol/L of bicarbonate, about 70 mmol/L to about 130 mmol/L of chloride, about 0 mmol/L to about 45 mmol/L of lactate, about 0 mmol/L to about 45 mmol/L of acetate and about 0 g/L to about 2.5 g/L of anhydrous glucose.

7. The two part dialysis solution of claim 1 wherein the first component has a pH ranging from about 7.2 to about 7.9 and the second component has a pH ranging from about 3.0 to about 5.0.

8. The two part dialysis solution of claim 1 wherein the first component has a pH ranging from about 7.4 to about 7.6 and the second component has a pH ranging from about 4.3 to about 4.5.

9. The two part dialysis solution of claim 1 wherein the first component has a pH ranging from about 8.6 to about 9.5 and the second component has a pH ranging from about 1.7 to about 2.2.

10. The two part dialysis solution of claim 1 wherein the first component has a pH ranging from about 8.9 to about 9.0 and the second component has a pH of about 1.9.

11. The two part dialysis solution of claim 1 wherein the first component and the second component are separately stored from each other until mixed together to form a mixed solution.

12. The two part dialysis solution of claim 11 wherein the first component is stored in a first chamber of a multi-chamber container and the second component is stored in a second chamber of the multi-chamber container.

13. The two part dialysis solution of claim 12 wherein the first chamber and the second chamber are adaptedly coupled such that the first component and the second component are capable of mixing to form the mixed solution.

14. The two part dialysis solution 12 wherein the first chamber includes an exit port through which the first component is capable of being in direct fluid communication with a patient prior to mixing and wherein the second component is not in direct fluid communication with the exit port prior to mixing.

15. The two part dialysis solution of claim 11 wherein the mixed solution comprises a dialysate capable of being used as part of a hemofiltration process.

16. The two part dialysis solution of claim 11 wherein the mixed solution comprises an infusion solution capable of being administered to a patient during continuous renal replacement treatment.

17. A two part dialysis solution that is designed to be infused into a patient comprising:

a first component comprising a bicarbonate concentrate that does not include potassium;

a second component comprising an electrolyte concentrate that includes potassium; and

the first component and second component being so constructed and arranged that the second component physically cannot be infused into the patient without mixing with the first component.

18. The two part dialysis solution of claim 17 wherein a mixed solution of the first component and the second component comprises about 100 mmol/L to about 160 mmol/L of sodium, about 0 mmol/L to about 2.0 mmol/L of calcium, about 0 mmol/L to about 1.5 mmol/L of magnesium, about 0.1 mmol/L to about 5 mmol/L of potassium, about 20 mmol/L to about 45 mmol/L of bicarbonate, about 70 mmol/L to about 130 mmol/L of chloride, about 0 mmol/L to about 45 mmol/L of lactate, about 0 mmol/L to about 45 mmol/L of acetate and about 0 g/L to about 2.5 g/L of anhydrous glucose.

19. The two part dialysis solution of claim 17 wherein the bicarbonate concentrate and the electrolyte concentrate include an equimolar amount of sodium of about 160 mmol/L or less.

20. The two part dialysis solution of claim 17 wherein the first component has a pH ranging from about 7.2 to about 7.9 and the second component has a pH ranging from about 3.0 to about 5.0.

21. The two part dialysis solution of claim 17 wherein the first component has a pH ranging from about 7.4 to about 7.6 and the second component has a pH ranging from about 4.3 to about 4.5.

22. The two part dialysis solution of claim 17 wherein the first component has a pH ranging from about 8.6 to about 9.5 and the second component has a pH ranging from about 1.7 to about 2.2.

23. The two part dialysis solution of claim 17 wherein the first component has a pH ranging from about 8.9 to about 9.0 and the second component has a pH of about 1.9.

24. The two part dialysis solution of claim 17 wherein the first component and the second component are separately stored from each other until mixed together to form a mixed solution.

25. The two part dialysis solution of claim 24 wherein the first component is stored in a first chamber of a multi-chamber container and the second component is stored in a second chamber of the multi-chamber container.

26. The two part dialysis solution of claim 25 wherein the first chamber and the second chamber are adaptedly coupled such that the first component and the second component are capable of mixing to form the mixed solution.

27. The two part dialysis solution of claim 25 wherein the first chamber includes an exit port through which the first component is capable of being in direct fluid communication with the patient prior to mixing.

28. The two part dialysis solution of claim 24 wherein the mixed solution comprises a dialysate that can be used as a part of a hemofiltration process.

29. The two part dialysis solution of claim 24 wherein the mixed solution comprises an infusion solution capable of being administered to the patient during continuous renal replacement treatment.

30. A two part dialysis solution comprising:

a first component comprising a bicarbonate concentrate;

a second component comprising an electrolyte concentrate; and

each of the first component and the second component including a physiological acceptable amount of potassium.

31. The two part dialysis solution of claim 30 wherein the physiological accepatable amount of potassium ranges from about 0.1 mmol/L to about 5 mmol/L.

32. The two part dialysis solution of claim 30 wherein a mixed solution of the first component and the second component comprises about 100 mmol/L to about 160 mmol/L of sodium, about 0 mmol/L to about 2.0 mmol/L of calcium, about 0 mmol/L to about 1.5 mmol/L of magnesium, about 0.1 mmol/L to about 5 mmol/L of potassium, about 20 mmol/L to about 45 mmol/L of bicarbonate, about 70 mmol/L to about 130 mmol/L of chloride, about 0 mmol/L to about 45 mmol/L of lactate, about 0 mmol/L to about 45 mmol/L of acetate and about 0 g/L to about 2.5 g/L of anhydrous glucose.

33. The two part dialysis solution of claim 30 wherein the bicarbonate concentrate and the electrolyte concentrate include an equimolar amount of sodium of about 160 mmol/L or less.

34. The two part dialysis solution of claim 30 wherein the first component has a pH ranging from about 7.2 to about 7.9 and the second component has a pH ranging from about 3.0 to about 5.0.

35. The two part dialysis solution of claim 30 wherein the first component has a pH ranging from about 7.4 to about 7.6 and the second component has a pH ranging from about 4.3 to about 4.5.

36. The two part dialysis solution of claim 30 wherein the first component has a pH ranging from about 8.6 to about 9.5 and the second component has a pH ranging from about 1.7 to about 2.2.

37. The two part dialysis solution of claim 30 wherein the first component has a pH ranging from about 8.9 to about 9.0 and the second component has a pH of about 1.9.

38. The two part dialysis solution of claim 30 wherein the first component and the second component are separately stored from each other until mixed together to form a mixed solution.

39. The two part dialysis solution of claim 38 wherein the first component is stored in a first chamber of a multi-chamber container and the second component is stored in a second chamber of the multi-chamber container.

40. The two part dialysis solution of claim 39 wherein the first chamber and the second chamber are adaptedly coupled such that the first component and the second component are capable of mixing to form the mixed solution.

41. The two part dialysis solution of claim 39 wherein the first chamber includes an exit port through which the first component is capable of being in direct fluid communication with a patient prior to mixing and wherein the second component is not in direct fluid communication with the exit port prior to mixing.

42. The two part dialysis solution of claim 38 wherein the mixed solution comprises a dialysate that can be used as part of a hemofiltration process.

43. The two part dialysis solution of claim 38 wherein the mixed solution comprises an infusion solution capable of being administered to a patient during continuous renal replacement treatment.

44. A method of providing hemofiltration to a patient comprising the steps of:

providing a first component comprising a bicarbonate concentrate and a second component comprising an electrolyte concentrate wherein each of the first component and the second component include a physiological acceptable amount of sodium;

mixing the first component and the second component to form a mixed solution; and

using the mixed solution during hemofiltration.

45. The method of claim 44 wherein the bicarbonate concentrate and the electrolyte concentrate include an equimolar amount of sodium of about 160 mmol/L or less.

46. The method of claim 44 wherein the bicarbonate concentrate and the electrolyte concentrate include an equimolar amount of sodium ranging from about 100 mmol/L to about 160 mmol/L.

47. The method of claim 44 wherein the mixed solution about 100 mmol/L to about 160 mmol/L of sodium, about 0 mmol/L to about 2.0 mmol/L of calcium, about 0 mmol/L to about 1.5 mmol/L of magnesium, about 0 mmol/L to about 5 mmol/L of potassium, about 20 mmol/L to about 45 mmol/L of bicarbonate, about 70 mmol/L to about 130 mmol/L of chloride, about 0 mmol/L to about 45 mmol/L of lactate, about 0 mmol/L to about 45 mmol/L of acetate and about 0 g/L to about 2.5 g/L of anhydrous glucose.

48. The method of claim 44 wherein the first component has a pH ranging from about 7.2 to about 7.9 and the second component has a pH ranging from about 3.0 to about 5.0.

49. The method of claim 44 wherein the first component has a pH ranging from about 8.6 to about 9.5 and the second component has a pH ranging from about 1.7 to about 2.2.

50. The method two part dialysis solution of claim 44 wherein the first component is stored in a first chamber of a multi-chamber container and the second component is stored in a second chamber of the multi-chamber container.

51. The method of claim 50 wherein the first chamber includes an exit port through which the first component is capable of being in direct fluid communication with the

patient prior to mixing and wherein the second component is not in direct fluid communication with the exit port prior to mixing.

52. The method of claim 44 wherein the mixed solution is used as a dialysate.

53. The method of claim 44 wherein the hemofiltration method is continuous renal replacement therapy.

54. The method of claim 53 wherein the mixed solution is infused into the patient as an infusion solution.

55. A method of providing hemofiltration to a patient comprising the steps of:

providing a first component comprising a bicarbonate concentrate that does not include potassium and a second component comprising an electrolyte concentrate that includes potassium;

orienting the first component and the second component so that the second component physically cannot be infused into the patient without mixing with the first component;

mixing the first component and the second component to form a mixed solution; and

infusing the mixed solution into the patient.

56. The method of claim 55 wherein the mixed solution comprises about 100 mmol/L to about 160 mmol/L of sodium, about 0 mmol/L to about 2.0 mmol/L of calcium, about 0 mmol/L to about 1.5 mmol/L of magnesium, about 0.1 mmol/L to about 5 mmol/L of potassium, about 20 mmol/L to about 45 mmol/L of bicarbonate, about 70 mmol/L to about 130 mmol/L of chloride, about 0 mmol/L to about 45 mmol/L of lactate, about 0 mmol/L to about 45 mmol/L of acetate and about 0 g/L to about 2.5 g/L of anhydrous glucose.

57. The method of claim 55 wherein the bicarbonate concentrate and the electrolyte concentrate include an equimolar amount of sodium of about 160 mmol/L or less.

58. The method of claim 55 wherein the first component has a pH ranging from about 7.2 to about 7.9 and the second component has a pH ranging from about 3.0 to about 5.0.

59. The method of claim 55 wherein the first component has a pH ranging from about 8.6 to about 9.5 and the second component has a pH ranging from about 1.7 to about 2.2.

60. The method of claim 55 wherein the first component is stored in a first chamber of a multi-chamber container and the second component is stored in a second chamber of the multi-chamber container.

61. The method of claim 60 wherein the first chamber includes an exit port through which the first component is capable of being in direct fluid communication with the patient prior to mixing.

62. The method claim 55 wherein the hemofiltration method is continuous renal replacement therapy.

63. The method of claim 62 wherein the mixed solution is infused into the patient as an infusion solution.

64. A method of providing hemofiltration to a patient comprising the steps of:

providing a first component comprising a bicarbonate concentrate and a second component comprising an electrolyte concentrate wherein each of the first component and the second component include a physiological acceptable amount of potassium;

mixing the first component and the second component to form a mixed solution; and

using the mixed solution during hemofiltration.

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